Comparison new and old simulation of

Compton scattering in the target

2007 Sep 14 H. Tatsuno

Old z-vertex simulation

```
Number of Events
 Total    = 110346 +- 332.184
 Normal   = 86553
 Compton  = 13385 +- 115.694
 Rayleigh = 10155
 Compton other + escaped Rayleigh  = 253

 Ratios
 Compton/Total = 0.1213 +- 0.00111023
 Compton/(Normal+Rayleigh)  = 0.138406 +-
0.00127643
```

13.84(13)%

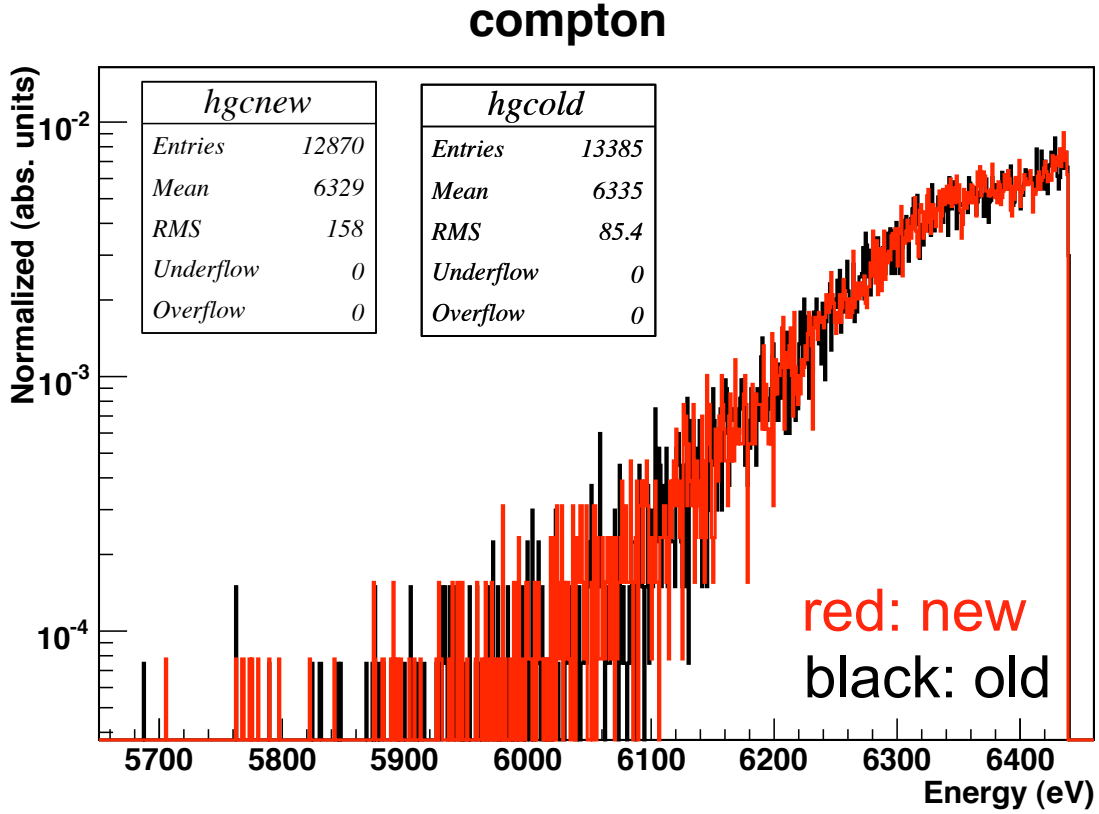
New z-vertex simulation

```
 Number of Events
 Total    = 105278 +- 324.466
 Normal   = 82203
 Compton  = 12870 +- 113.446
 Rayleigh = 9988
 Compton other + escaped Rayleigh  = 217

 Ratios
 Compton/Total = 0.122248 +- 0.00114155
 Compton/(Normal+Rayleigh)  = 0.139601 +-
0.00131364
```

13.96(13)%

Same distribution

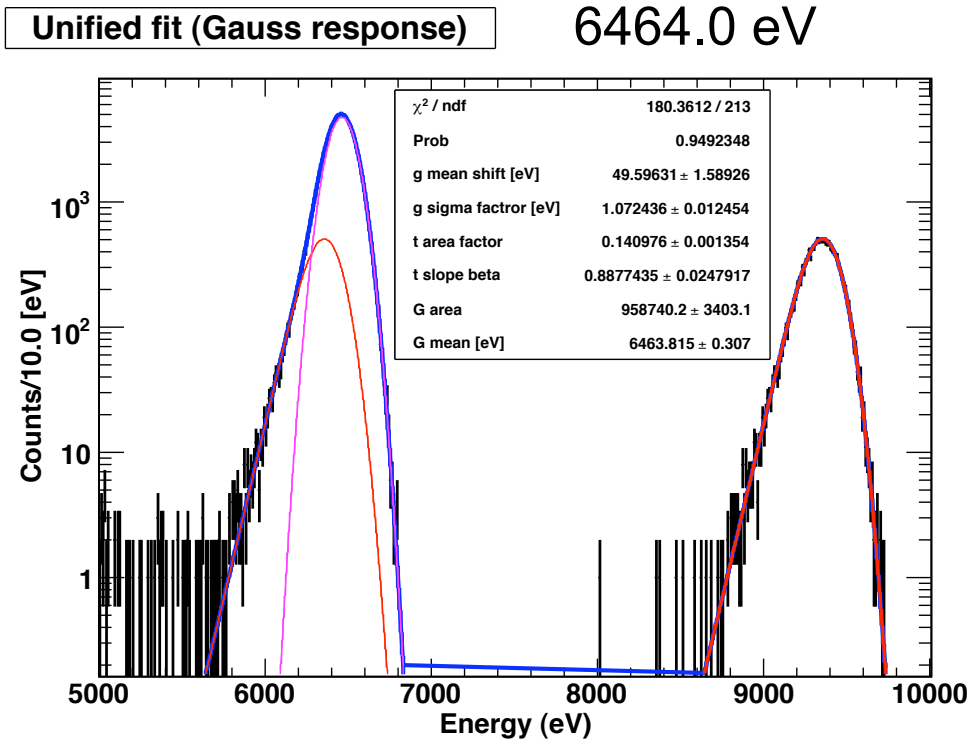


Relative intensity increased 0.12 point (within statistical error)

No change needs for final results.

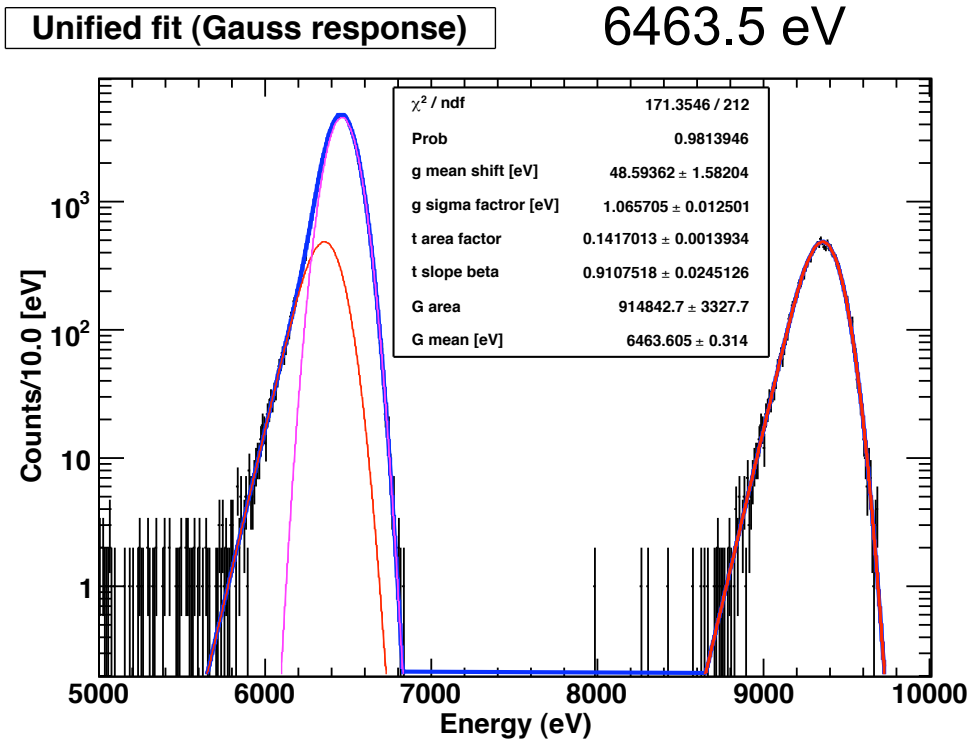
Getting parameters

Old z-vertex simulation



EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR
1	g mean shift [eV]	4.95963e+01	1.58908e+00
2	g sigma factror [eV]	1.07244e+00	1.24544e-02
3	t area factor	1.40976e-01	1.35423e-03
4	t slope beta	8.87743e-01	2.47890e-02
5	G area	9.58740e+05	3.40320e+03
6	G mean [eV]	6.46382e+03	3.06768e-01
7	G sigma [eV]	8.19374e+01	fixed

New z-vertex simulation



EXT NO.	PARAMETER NAME	VALUE	PARABOLIC ERROR
1	g mean shift [eV]	4.85936e+01	1.58194e+00
2	g sigma factror [eV]	1.06570e+00	1.25023e-02
3	t area factor	1.41701e-01	1.39344e-03
4	t slope beta	9.10752e-01	2.45105e-02
5	G area	9.14843e+05	3.32779e+03
6	G mean [eV]	6.46360e+03	3.14230e-01
7	G sigma [eV]	8.19357e+01	fixed

No significant difference